

WHAT IS CLAIMED IS

1. A closure assembly for use at the opening of a drinking vessel, comprising:

5 a cap including a hollow mouthpiece protruding therefrom and having a first aperture at its free end through which liquid in said vessel can flow out upon suction at the mouthpiece;

a support provided inside the mouthpiece and having  
10 at least one second aperture that in conjunction with the first aperture define a path for said flow of liquid; and

a valve member comprising a resiliently deformable diaphragm located between the mouthpiece and the support, the diaphragm having an aperture in the path and normally  
15 bearing resiliently against the support to have its aperture closed by the support thereby blocking the path;

the arrangement being such that upon suction at the mouthpiece the diaphragm is deformed under pressure away from the support to have its aperture opened to thereby  
20 permit said flow of liquid.

2. The closure assembly as claimed in claim 1, wherein the diaphragm has a part that normally bears resiliently against and thus closes the second aperture, and the  
25 second aperture is opened when the diaphragm is deformed to have its aperture opened.

3. The closure assembly as claimed in claim 1, wherein

the diaphragm is concave and the support has a concave part in which the diaphragm is located and resiliently against which the diaphragm normally bears.

5     4.   The closure assembly as claimed in claim 3, wherein the diaphragm aperture is positioned centrally of the diaphragm, and the support part includes at its periphery a plurality of said second apertures surrounding the diaphragm aperture.

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5.   The closure assembly as claimed in claim 1, wherein the diaphragm is located by the support at a position immediately behind the mouthpiece aperture.

15   6.   The closure assembly as claimed in claim 1, wherein the support is hollow and is positioned co-axially inside the mouthpiece, each having an upper end including the respective aperture.

20   7.   The closure assembly as claimed in claim 6, wherein the valve member includes a sleeve closed at one end that provides the diaphragm, the sleeve being compressed between the mouthpiece and the support.

25   8.   The closure assembly as claimed in claim 7, wherein the valve member is mounted on and encloses the support.

9.   The closure assembly as claimed in claim 6, wherein

the support includes a peripheral flange outside the mouthpiece and engageable with the cap for locating the apertured part of the support inside the mouthpiece.

5 10. The closure assembly as claimed in claim 1, wherein the cap includes at least one breather hole, and the valve member includes a resiliently deformable part which normally bears resiliently against and thus closes the  
10 deformed under pressure away from the breather hole to open it to thereby equalise pressure across opposite sides of the diaphragm.

11. A closure assembly for use at the opening of a  
15 drinking vessel, comprising:

a cap including a mouthpiece protruding therefrom and having a first aperture at its free end through which liquid in said vessel can flow out upon suction at the mouthpiece;

20 a support provided inside the mouthpiece and having at least one second aperture to permit said flow of liquid; and

a valve member comprising a resiliently deformable diaphragm located between the mouthpiece and the support,  
25 which is apertured and is disposed between the first and the second apertures and normally bears resiliently against the support to have its aperture closed by the support;

the arrangement being such that upon suction at the mouthpiece the diaphragm is deformed under pressure away from the support to have its aperture opened to thereby permit said flow of liquid through also the first and  
5 second apertures.